

# Smartphone Tool Guide Against Hackers and Viruses



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## Introduction

"Have you properly protected your computer against hackers and viruses?" Hacking and online security is something that is often discussed or often reminded of. But what's striking about this is that it is usually limited to computers. Smartphones usually remain undiscussed in daily conversations, while they can just as easily be hacked or contract a virus.

Enough has been said and done about protecting your computer against hackers and viruses. And while we believe that computer security issues should not be downplayed, smartphones remain an underexposed point

in debates about security and viruses. That is why we focus exclusively on smartphones in this zine.

First of all, we will look at the consequences if your phone has been hacked or has contracted a virus.

Then we will discuss the consequences for others if your smartphone encounters these problems. Subsequently, we will provide solutions to prevent these things from happening. And last but not least: we will compare two of the leading smartphone operating systems: iOS and Android.

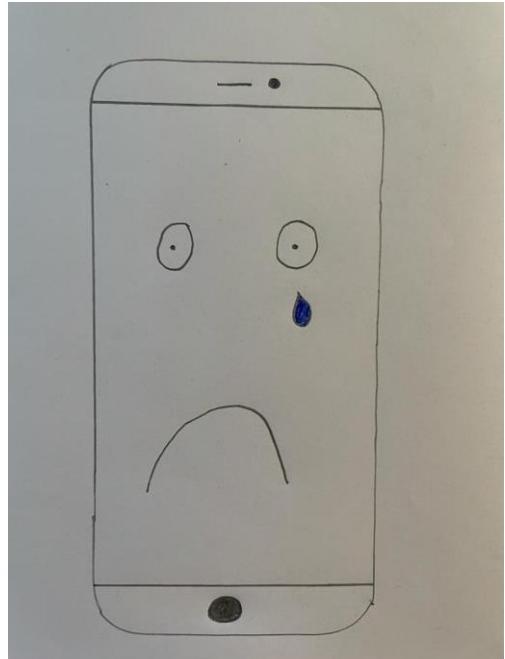


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## Individual problems....?

When your phone has been hacked or has contracted a virus, you encounter some unpleasant problems. Like:

- You are no longer available because you cannot call, WhatsApp or FaceTime with your peers and family.
- You cannot access important information and apps like your passwords, bank apps and/or your schedule for your job
- If your phone can not be fixed, you lose a lot of money when buying a new phone. Besides, all your information and photos are lost when saved incorrectly.



And these are just some examples! Just stand still for a moment what feeling you would have when you discover your phone is hacked. Not only would you experience dismal consequences, but your peers and family will too!

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## Problems for relatives and peers...?

When your phone is hacked or has contracted a virus, people that are close to you also experience issues:

- They could be worried because you are not able to communicate with them
- Hackers may steal your identity and act like you. They might ask your friends or family for money or information. This is not something you want

Securing your phone and protecting it from hackers is a wise thing to do. But how can you do that?



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# Solutions!

After reading the first pages of this Zine, you might be worried about your phone. Is my phone safe and can do anything to protect my phone against hackers? The answer is easy,

**Yes, you can!**

On the internet we found some interesting websites that could help you protect your phone. In the following pages we will give summaries of the website and, of course, we will place a link at the bottom of the summary so you can visit the website yourself.



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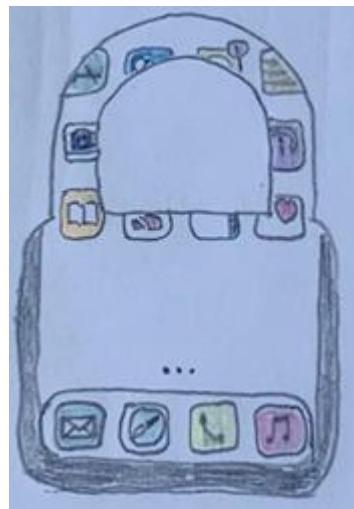
## Ways to secure your iOS device

The security of an iPhone, or iOS, looks slightly different than that of a device that runs on Android. Android, as well as iOS, offer several choices and options to ensure the security of your device. Consider, for example, the FaceID, or the fingerprint scan. These are tailored to your physical characteristics only, but they still contain dangers. Hackers or thieves can gain access to your identical codes more and more easily than you would expect. In the following internet link, you can clearly see how best to secure your smartphone, in addition to the existing methods

The software comes from Signal, a free open source of software that you can install on your smartphone. In the guide you will find a step-by-step plan that you can follow. The app is also applicable to Android and gives you the option to install extra security on your phone. With this extra security, the app offers you the possibility to exchange messages with other users, which are encrypted. The app also allows you to send voice memo messages containing an encrypted code. The app also gives you an option to encrypt your messages on your device with a password.

As you can see, securing your smartphone is very important. Don't make it too easy for hackers.

<https://securityinabox.org/en/guide/signal/ios/>



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## Security on Android Device

If you want to protect your Android against hackers and viruses, it can be useful to take measures. Luckily for you, we have 7 tips and tricks to increase the security of your smartphone. These include 'Setting up a passcode', 'Find My Device', 'Google Play Protect', 'Two-Factor Authentication', 'Lockdown Mode', 'App Permissions' and 'Review location settings'. These tips and tricks are provided by Kim Geraghty, who works for Kimberly Ann Komando, an American host of a radio show about consumer technology where she provides information and advice concerning the internet, internet security, smartphones, websites, and apps. The corresponding link directs you to Komando's website for detailed information about these tips and tricks!

<https://www.komando.com/smartphones-gadgets/essential-android-security-settings/704326/>

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## iOS versus Android (part 1)

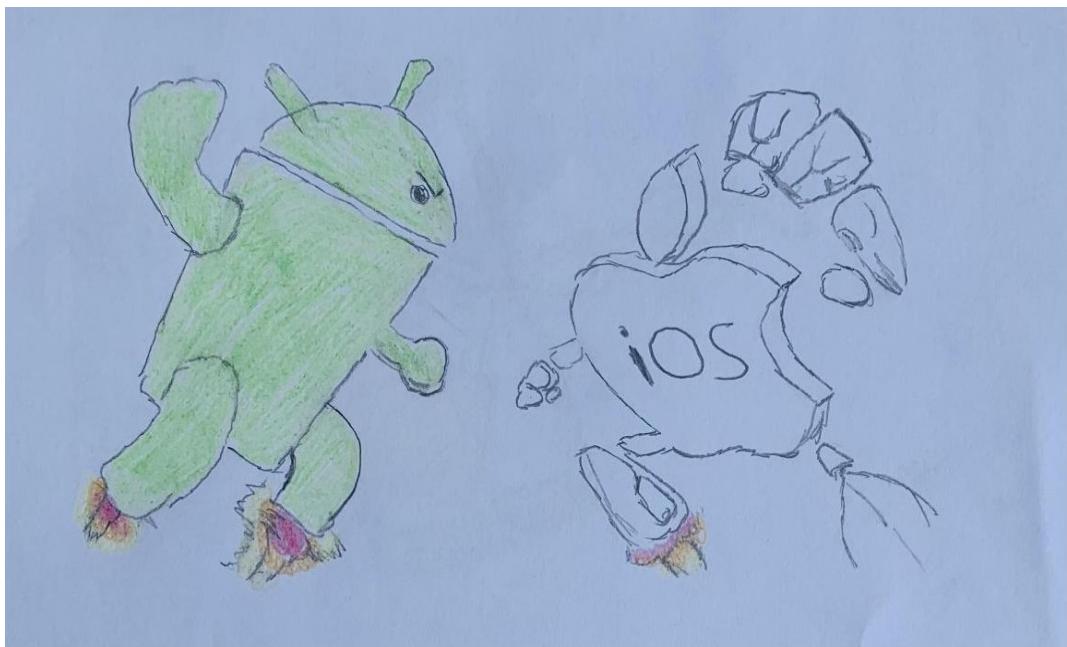
The age-old debate, who is better: iOS or Android? Spoiler alert! We have the answer for you when it comes to security. And the winner is ... \* drum roll \* ... neither! This is because it is not possible to formulate a simple answer to this debate. They both have their advantages and disadvantages: in some areas iOS scores better, in others Android wins. If you want to read a more detailed explanation on this topic, click on the following link →

<https://us.norton.com/internetsecurity-mobile-android-vs-ios-which-is-more-secure.html#:~:text=In%20some%20circles%2C%20Apple's%20iOS,%20the%20two%20operating%20systems.&text=Android%20is%20more%20often%20targeted,so%20many%20mobile%20devices%20today.>

Oh, and by the way, the article we are referring to was written by the company behind Norton, one of the most widely used antivirus programs in the world. This indicates that they did not write the article with any particular bias. There is no conflict of interest in which Norton, for example, only supplies anti-virus programs to Android and therefore wants to make iOS appear less good in the article or vice versa.

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## Security on iOS device

If you prefer to take a slightly more practical approach to the security of your smartphone, we offer you another option. If you are tired of reading and would rather sit back, here's what you can do. In order to protect your Apple device even better, we have selected a video for you in the link below that can guide you to better security.

This video draws attention to the people who work on the front lines. Think of the press. This is not about simple security, such as a code. The video shows how you can completely shut down a smartphone that runs on IOS from the bad actors in the field, such as hackers.

The options you are presented with seem a bit on the extreme side, but this is one of the best ways to prevent your smartphone from falling into the wrong hands with your data.



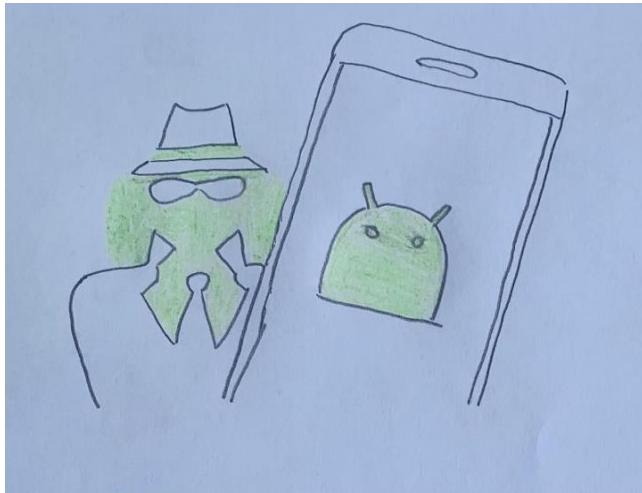
<https://www.youtube.com/watch?v=ZLS9KMoNMlc>

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## Android video link

The same goes for Android-users: if you prefer to take a more leaned back approach, no worries, we got you covered. At the end of this page, you will find a video link with all the information you need to protect your android device against hackers and viruses.

The video in the corresponding link was posted by a verified account and provides very useful information for you!



<https://www.youtube.com/watch?v=QxEpued61OI>

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## iOS versus Android (part 2)

Yes, we know ... we've had the discussion between iOS and Android before. But we still want to say something about it. This is because we want you to take a fresh look at the discussion. This is possible thanks to NordVPN, a provider of virtual private networks for personal use, which has created an informative video about the iOS and Android debate. In the video, they seem to be more in favor of iOS, although they also state that Android has some advantages over its competitor. The reason we want to show you this video is that there is no general consensus in this debate. Some, as already mentioned with regard to Norton, do not think there is an unequivocal answer to be formulated in this debate. Others prefer iOS, while there are also those who argue for Android. Ultimately, it is up to you to decide. We are just giving you the tools.

Watch the video here →

<https://www.youtube.com/watch?v=ejfZ6jzTx9k>

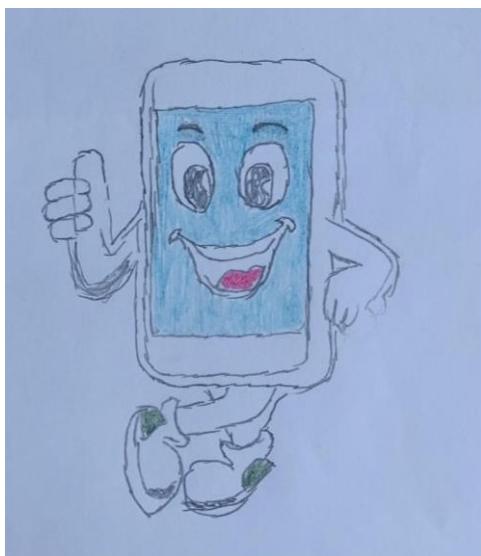
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## Outro

In conclusion, it can certainly be useful to take measures to protect your smartphone from hackers and viruses. Although the measures given do not guarantee complete protection, the risks are significantly minimized. A smartphone without viruses or hackers is a happy smartphone (and the user will probably be happy too).

It is also important to remember that there is no unequivocal answer to the discussion about which of the operating systems, iOS and Android, is better protected against hackers and viruses. While one leans more towards iOS, the other swears by Android again, and there are also those who argue that there is no clear winner in the battle between the rivals.



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## Reference list

Geraghty, Kim

2020        7 essential Android security settings: 2FA, spot shady apps, stop location trafficking.

<https://www.komando.com/smartphones-gadgets/essential-android-security-settings/704326/> date of access: 13-05-2021.

Markuson, Daniel

2021        Android vs iOS: security comparison 2021.

<https://nordvpn.com/nl/blog/ios-vs-android-security/> date of access: 11-05-2021.

Rafter, Dan

2021        Android vs iOS: Which is more secure?

<https://us.norton.com/internetsecurity-mobile-android-vs-ios-which-is-more-secure.html#:~:text=In%20some%20circles%2C%20Apple's%20iOS%20is%20two%20operating%20systems.&text=Android%20is%20more%20often%20targeted,so%20many%20mobile%20devices%20today> date of access: 13-05-2021.

Ritchie, Rene

2020        How To Protect Your iPhone Privacy and Security.

<https://www.youtube.com/watch?v=ZLS9KMoNMic> date of access: 11-05-2021.

2021        Security in a Box

<https://securityinabox.org/en/guide/signal/ios/> date of access: 11-05-2021.

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